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As of mid-1983, the US Army medical community prohibited the use of written orders such as 'Do Not Resuscitate (DNR)' or 'No Code' in patient medical records. At the same time policy statements addressing DNR were in fairly widespread use in the civilian health care system. This study surveyed US Army physicians who have made or were likely to make DNR decisions in an attempt to determine whether or not they felt a written policy authorizing the charting of DNR orders was needed. Results indicated that more than 75% of all physicians surveyed believed that the Health Services Command should formulate a policy which allows DNR orders to be written in the charts of terminally ill patients. A suggested policy was presented.

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SURVEY OF UNITED STATES ARMY PHYSICIAN OPINION: THE ISSUE OF WRITTEN "DO NOT RESUSCITATE" ORDERS

A Graduate Research Project
Submitted to the Faculty of
Baylor University
in Partial Fulfillment of the
Requirements for the Degree
of
Master of Health Administration

By
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August 1983

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I. Introduction

One of the most difficult and dramatic situations a physician has to face is the decision to start or maintain resuscitation for the terminally ill patient.[1] All Americans must contend with the possibility that they may be kept alive beyond any hope of ever again functioning as a human being or relating to family and friends.[2] Before the days of modern technology, vital body functions could not be maintained artificially, therefore, when one essential body function ceased, others quickly followed. Prolonging life has always been the goal of medical practitioners, but there was formerly nothing that could be done when vital functions ceased.[3]

Today with the great advances in medical science many practitioners feel death is the symbol of failure. Death is perceived to be something that should not occur but rather should be postponed, if only temporarily, whenever possible.[4] Postponing death to the last possible moment using modern resuscitative techniques has created social and medical dilemmas with ethical, moral, and legal ramifications for all the participants in this nation's health care system.

Documentation of a decision not to resuscitate a terminally ill patient in the medical record is an issue which has been debated in medical, legal, and theological circles for many years. In "Standards for Cardiopulmonary Resuscitation (CPR) and Emergency Cardiac Care (ECC)," the AMA recommends that the decision not to resuscitate the terminally ill patient be recorded on the

physician order sheet in the patients chart. By writing the order clearly in the record the AMA believes nursing and other personnel will definitely understand their responsibilities for initiating and participating in CPR.[5] Currently the military medical community prohibits the use of written orders such as "Do Not Resuscitate (DNR)" or "No Code" in the patients medical record.[6] Policy statements which address "no resuscitation" are in fairly widespread use in the civilian health care system.[7] Opponents of written DNR policies feel that such policies place medical practitioners in positions where they have to "play God." Antagonists to DNR policies on these grounds undoubtedly would consider the administration of drugs and heart massage to revive a patient in cardiac arrest a natural part of living.[8] In actual practice it may be that only a small minority of patients have everything possible done for them right up to the moment of death. The difficulty may not be with the general principle, but with how to arrange the details.[9]

It was not only the lack of detail in the military establishment's DNR policy, but also the lack of a requirement for a written DNR statement in the patients record that prompted this study. Interviews with the Commander, Executive Officer, Chief of Professional Services, and Chief, Department of Surgery, at the United States Army Community Hospital, Fort Stewart, Georgia[10, 11, 12, 13] reinforced the need to determine the appropriateness and details of a DNR policy which might be applied in the military health care system. A December 1982 article in the U.S. News and World Report

reported that the debate over the prolongation of life in terminally ill patients using modern resuscitative techniques continues to rage in the civilian community.[14] This article provided further stimulus to study the need and appropriateness of a DNR policy within the military.

Legal Aspects

Legal aspects of a DNR policy have been a major concern of civilian, state, and Federal health care providers. Society has established priorities by law around issues of automobile safety, cigarette advertising, use of certain pesticides, disposal of radioactive wastes, and provision of food for the hungry. All of these laws have had life and death implications, just as do decisions on prolonging life for particular patients. However, a decision about an individual's life is often much more dramatic than when the lives of unknown thousands are at stake.[15]

There is a consensus of opinion among the medical and legal profession on the question of how far a doctor must go to delay death. Physicians are obligated to prescribe ordinary but not extraordinary means to prolong life. Whether the treatment is ordinary or extraordinary depends on the individual case.[16, 17, 18]

Ordinary is defined in law as the degree of skill and competence of the physician, which need not be of the highest nor the lowest, compared with that of other physicians of similar training practicing under similar circumstances.[19] Extraordinary, on the other hand, is defined as:

"Whatever here and now is very costly or very unusual or very painful or very difficult or very dangerous, or if the good effects that can be expected from its use are not proportionate to the difficulty and inconvenience that are entailed."[20]

Though definitions of extraordinary care are presented in the literature, there exists no absolute scale for judging the degree of extraordinariness. What is or is not extraordinary can only be judged in relation to the individual.[21]

Common law courts have never convicted a medical practioner for shortening the life of a suffering terminal patient or for refusing to render life-sustaining aid.[22, 23, 24] Of the three landmark cases which deal with the issue of prolonging the life of a terminally ill patient, only in the matter if Shirley Dinnerstein, Appeals Court of Massachusetts, June 1978, is the issue of DNR directly addressed.[25] The other two cases were in the matter of Karen Quinlan[26] and Superintendent of Belchertown State School vs Joseph Saikewicz.[27] The Quinlan case addressed the issue of withdrawing life support equipment after it was already in place. In the Saikewicz case, the issue was the terminating of treatment for a terminally ill 67 year old, profoundly retarded, institutionalized patient. In its written opinion, the Massachusetts Supreme Court stated that judicial intervention was appropriate in all cases to permit the withdrawal of life support for terminally ill patients.[28]

The case of Mrs. Shirley Dinnerstein was begun to clear up the confusion generated by the Saikewicz decision requiring court involvement in life prolonging decisions. At issue in the Dinnerstein case was the requirement to obtain a court order before a physican could give a DNR order for an incompetent, terminally ill patient where next of kin and physican concur with the decision not to resuscitate.[29]

Mrs. Dinnerstein, a 67 year old woman with terminal Alzheimers disease, was hospitalized following a crippling stroke. Both the patient's

immediate family and attending physician had agreed that in the event Mrs. Dinnerstein suffered a cardiac arrest, she would not be resuscitated. In an attempt to follow the precedent set in the Saikewicz opinion, the hospital and physicians petitioned the county probate court to determine the need for a court-approved DNR order. The probate court reported the findings and evidence to the Appeals Court of Massachusetts.[30]

On June 30, 1978, the appeals court gave the opinion that, "...the law does not prohibit a course of medical treatment which excludes attempts at resuscitation in the event of cardiac or respiratory arrest and the validity of an order to that effect does not depend on prior judicial approval."[31] The court further stated in the Dinnerstein case, "...presents a question peculiarly within the competence of the medical profession of what measures are appropriate to ease the imminent passing of an irreversibly, terminally ill patient in light of the patient's history and condition and the wishes of the family."[32]

Though the Dinnerstein case decision was reached at a lower judicial level than either the Quinlan and Saikewicz cases, it is currently the legal authority upon which a DNR policy may be founded.[33, 34, 35, 36]

Impact on Nursing

Lack of resuscitation policies is a perplexing source of conflict among many nurses.[37] Misgivings arise most frequently when no medical resuscitation decision for a particular patient has been made, and the nurse is torn between following an implied order to prolong life and ignoring it.[38] Quite frequently the nurse is the only attending medical professional in a position to respond to a patient who has a cardiac arrest. The nurse may be placed in this paradoxical position by conflicting written and verbal

instructions from physicians; by orders that conflict with hospital policy; by conflicting and inter-conflicting directions from patients, family members, and physicians; by their own conflicting perceptions and values; and finally by the absence of a clear, rational, and humane policy regarding resuscitation of the terminally ill. In settings where there is no DNR policy, it is not uncommon for nurses to be asked to use such tactics as "slow code," which means walk don't run to the telephone.[39] Often the lack of a written DNR policy is attributed to its cloudy legal status though many commentators in the field feel the legal status of DNR orders is quite clear.[40, 41]

To help relieve some of the frustrations suffered by the nursing staff, Alexander and Brown, in separate articles, recommend that resuscitation decisions be made for every patient with a terminal illness. They believe the hospital has the responsibility to set the criteria for DNR orders and present them in nursing procedures manuals and other appropriate administration and medical staff manuals. Once these criteria and policies have been set out, then all the nursing staff should be familiarized with them.[42, 43]

Brown and Alexander's recommendations are supported by numerous other authors.[44, 45, 46, 47, 48]

The Physicians Role

Physicans who manage the care of terminally ill patients are constantly required to make decisions regarding the best treatment. A physician studies his patient, selects what he believes to be the best treatment and then makes the appropriate effort to explain and execute his recommendations. Usually these decisions have as their ultimate goal, the prolongation of life. For the terminal patient, the physician must choose

between a formula for the preservation life or a comfortable and dignified death.[49]

Health care professionals must determine the point at which a patient's dying process has begun. There are no known clinical formulas for determining this point, since it is not necessarily associated with the patient's awareness of impending death or initial diagnosis of a fatal malady. In his deliberations concerning resuscitative efforts to be used to prolong the terminal patient's life, the physician must look for the point where the life curve takes a noticeable downward turn so dramatic that the possibilities for life are negligible.[50] This risk-filled decision concerning the onset of the dying process requires the physician to muster the courage and perhaps the legal protection to act upon it. At this point the physician has determined that further treatment can no longer influence the prognosis.[51, 52, 53]

In caring for the competent patient, the physician has the duty to make it clear to the patient that there are available extraordinary means which may maintain his life. A physician is obligated to use these extraordinary measures if the patient requests that he do so.[54] The incompetent or unconscious patient requires, in most cases, a consultation with the family or guardian before life preserving decisions can be made. A physician should not withhold care without the agreement of the closet relatives or guardian of the patient.[55, 56, 57, 58]

The case of lifesaving treatment for the defective infant requires some special consideration by the physician. A terminally ill patient will soon die, with or without extraordinary treatment regimens. The defective infant, on the other hand, if treated, can normally live for significant periods, unless the quality of his life affects its value, a judgement for

which there is no legal precedent.[59] The likelihood that treatment means life, should justify the procedure. When there is no hope of prolonging the childs life, then a life-saving procedure may be extraordinary and thus not required.[60]

The Canadian Medical Association (CMA), at its annual meeting in 1974, passed a resolution designed to sanction its member physicians' decisions concerning the preserving of life for terminally ill patients. They resolved that it is appropriate, medically and ethically, for a physician to write a DNR order for terminal patients whose death seems imminent and inevitable.[61]

Physicians should feel that their decisions not to resuscitate are fully compatible with respect for the fullness of human-life.[62] They must in the final analysis judge whether to try a given treatment based on an estimate of whether there is a reasonable hope of success in saving the patients life.[63]

Policy

Numerous mechanisms have been suggested for institutions to effect a policy for with-holding life-support or life-saving care. DNR policy alternatives range from the doctor alone making the decision, the doctor and patient or family, to committees composed of various members of the patients health care team.[64, 65] The first step toward an institutional DNR policy is presenting the problem to the policy making board of the hospital for study and resolution.[66, 67]

Most of the policies suggested in the literature on the subject of DNR follow an outline similar to the one which follows:

1. In the case of the competent patient:
    a. Discussion of relevant facts.
    b. Reassessment of the order.
    c. Patient requests to remove the order.
    d. Provisions for reasonable mental and physical comfort.
2. If the patient is incompetent:
    a. Discussion of the relevent facts with the appropriate family member or guardian, by the attending physician.
    b. Consultation with another physician.
    c. Reassessment of the order at reasonable intervals.
    d. Provisions for the removal of the order by the appropriate family member or guardian.
3. In all cases the relevant facts[68, 69, 70, 71, 72, 73] should be documented in the patients record.

Statement of the Applied Research Question

The material presented thus far suggests that health care facilities should have clearly stated policies concerning the utilization of "Do Not Resuscitate" orders. The researcher feels that the physicians who face life prolonging decisions involving terminally ill patients have an opinion concerning the need for a policy which authorizes written DNR orders in the patient's medical record. In addition, it is felt that physicians will have an opinion about the general form of a policy which will guide them in making the decision to write a DNR order.

The applied research question is:

a. Do a significant proportion of U.S. Army physicians who have or are likely to make DNR decisions believe that a written policy authorizing the charting of DNR orders is needed?

b. Of the physicians who favor a written DNR policy, what is their opinion regarding the general outline of such a policy?

Ultimately it is believed that a policy allowing the writing of DNR orders in the terminally ill patient's chart will improve the quality of medical care rendered to these patients. Patients who might have lingered in a vegetative state after numerous "codes" may be allowed to die in peace and dignity. It is believed the suffering and grief which is attendent upon the involved family members who must wait for the inevitable will be lessened.

Objectives

The objectives which must be achieved to accomplish this research project are as follows:

1. Determine the appropriate target populations of U.S. Army physicians from which to draw a sample.

2. Determine the minimum sample size of the population of Army physicians selected as the target group which will allow statistical inferences to be made.

3. Develop, distribute, and collect a questionnaire designed to poll the target population with regard to the issues surrounding the propriety of a DNR policy.

4. Collate data from the questionnaires which are returned.

5. Analyze the data using the appropriate statistical test.

6. Make inferences to determine if a significant number of physicians in the target population believe that a policy authorizing written DNR orders is appropriate for terminally ill patients.

7. Make inferences from the number of physicians who feel a DNR policy is required about the general form of such a policy.

8. Report findings to the Health Services Command.

Criteria

Physician opinion will be obtained using a survey questionnaire. The questionnaire will require yes or no responses. Inferences about the opinions obtained will be made using hypothesis testing about population proportions as described by Daniel.[74]

The null hypothesis is 75 percent or less of Army's physicians who have or are likely to make DNR decisions favor a policy which allows recording DNR order in the medical record. The level of significance will be α=.05.

Similar hypothesis tests will be used to make inferences based on the responses to the questions in the survey which deal with the general form of a DNR policy.

A Chi square test of independence will be used to test the null hypothesis that the physicians responses concerning the need for a DNR policy is independent of their specialty or aged α =.05.[75] Descriptive statistices will be used to profile the sample group based on answers furnished to the first eight questions of the survey.

Assumptions

The determination of the minimum sample size to be used (n=228) in this research project required an estimate of the population proportion (p).[76] A notion for the upper bound of (p) was obtained from a review of similar studies to the one contemplated in the literature. The general consensus was that 60 to 90 percent of the physicians polled believed that policies were needed to describe the practice of writing DNR orders.[77, 78, 79, 80, 81, 82] An estimate of the population proportion (p) favoring a policy for written DNR orders, was derived as one half the difference in the extremes found in the literature or 75 percent. This estimate of (p) will be assumed to apply to all the issues related to DNR decisions.

It will be assumed that the physicians responses will represent their true feelings about the issues addressed by each question.

Limitations

Several related medicolegal issues will not specifically be distinguished in this study. These issues include euthanasia, "mercy killing," the definition of death, living wills, the right to die and natural death acts.

Automated data handling equipment is not available to the researcher.

Research Methodology

A survey questionnaire will be sent to a random sample of U.S. Army physicians who meet the following criteria:

1. Those who have been or are currently in types of practices that provide patients in life threatening or terminal illness situations.[83]

2. Those in a position to make independent judgments about withholding life support.

A copy of the survey questionnaire and its cover letter is at the appendix. A separate pre-addressed postcard to acknowledge return of the questionnaire will be included in the packet of materials sent to physicians.

The size of the sample (n=228) was determined using the formula[84] for sampling a finite population without replacement expressed as follows:

$$n = \frac{Nz^2 pq}{d^2 (N-1) + z^2 pq}$$

The size of the population of interest (N) was determined to be 2219.[85] A one sided hypothesis test is envisioned in the data analysis, hence, the Z score used will be Z=1.645 with α =.05. The desired confidence interval width (d) was set equal to .05. An estimate of the population proportion (p) was stated previously to be 75 percent. The q term equates to 1-p or .25.

The sample will be sufficiently large to allow the use of a normal approximation of a hypergeometric distribution, rather than a binomial distribution since sampling will be without replacement.[86] If the computed value of the test statistic (Z score) is equal to or greater than 1.645 then the null hypothesis will be rejected. It will then be inferred that more than 75 percent of the target population of physicians believe that a policy allowing written DNR orders in the patient's chart is appropriate. The method of arriving at the estimate of the population proportions will be described in the assumptions section.

The list[87] from which the names of the physicians in the population of interest was obtained is arranged in order of specialty skill identifier (SSI) and grade. To insure randomness in the sampling process, the systematic sampling technique[88] was used to select the individuals to whom questionnaires will be mailed. A sample of 912 names will be drawn, which is four times the number needed to obtain the minimum sample size.

Responses to questions 1 thru 8 in the questionnaire will be used to develop a demographic profile of the respondents using descriptive statistics. Analysis of questions 9 thru 15 will test the opinion of the population of physicians in the study concerning the issue of whether there should be a DNR policy. Sample proportions derived from totalling individual responses to each questions will be used to test the null hypothesis that 75 percent or less of the population of physicians support a policy allowing DNR orders to be written in the chart. A significance level of .05 will be used on all hypothesis tests throughout the study.

A Chi square test of independence will be performed using the actual numbers of yes and no responses to questions 9 thru 15. These independence tests will have the following null hypothesis:

a. Responses to the question are independent of the physicians subspecialty.

b. Responses to the question are independent of the physicians age.

Sample population proportions derived from the responses to questions 16 thru 24 will be tested for significance using the same testing methodology and level of significance as in the analysis of questions 9 thru 15. The analysis of questions 16 thru 24 will address inferences about how DNR decisions for competent and incompetent patients will be handled.

The final portion of the analysis will test the significance of physician opinion about questions 25 thru 31. Inferences from these questions will suggest an administrative mechanism for making the DNR decision. Question 32 was included to determine if physicians felt their education had prepared them to advise patients about DNR decisions.

The results of the study will determine if a significant number of U.S. Army physicians, who are now making or have made decisions about prolonging the life of terminally ill patients, favor a policy for the use of written DNR orders, as well as, the general form of such a policy. If it can be inferred that over 75 percent of the Army's physicians favor the writing of DNR orders, then a recommendation will be made to Health Services Command (HSC) to adopt such a policy. The general form of the recommended policy will

be included in the recommendation. Failure to find a significant number of physicians in favor of a DNR policy will also be reported to HSC with a recommendation that written DNR orders and policies may not improve the practice of medicine within the military health care system.

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[80]Elizabeth Swenson, Joyce Matsura, and Ida M. Martinson, "Effects of Resuscitation for Patients with Matastitic Cancers and Chronic Heart Disease," Nursing Research 28 (May/June 1979): 152.

[81]Harold J. Wershow, Ferris J. Ritchey, and Thomas H. Alphin, "Physicians Opinions Toward Legislation Defining Death and Withholding Life Support," Southern Medical Journal 74 (February 1981): 215-18.

[82]Norman K. Brown, p. 76.

[83]Military Personnel Center, Department of the Army, "AMEDD Officer Listing MEDD-333 Part 6 Officer Specialty/Grade Listing," November 1982: pp. 431-802.

[84]Daniel, p. 180.

[85]Military Personnel Center, p.431-802.

[86]Daniel, p. 142.

[87]Military Personnel Center, p.431-802

[88]Daniel, pp. 495-8.

II. PRESENTATION AND DISCUSSION OF DATA

Characteristics of the Sample

Questionnaires were mailed to 912 randomly selected United States Army physicians of which 517 (56.7 percent) of these were returned. Table 1 describes the physicians specialities which were sampled in detail. It will be noted in Table 1 that more physicians in some specialties returned questionnaires than were sent them in the first place. The list of physicians from which the sample was selected reflected a physician's current primary specialty skill identifier (SSI). The primary SSI determined if a physician fell into a particular group of specialists. Some physicians may have been practicing in a secondary specialty or indicated the specialty for which they were in training as residents or fellows.

Respondents indicated they had attended a total of 122 different medical schools located throughout the United States. All of the respondents who indicated they had graduated from medical schools outside the United States were grouped together as foreign medical school graduates. This group included 37 physicians. It was envisioned that the data collected in the questionnaire might at some future date be analyzed using automated equipment. In such an analysis, medical schools would be grouped on a regional basis such as southwest or southeast and the responses tested for independence of geographical area of training. Table 2 located in Appendix B lists all the medical schools from which the respondents received their training, as well as, the number in the survey from each school.

TABLE 1

SPECIALTY DEMOGRAPHICS OF THE POPULATION OF PHYSICIANS SELECTED FOR STUDY

Specialty	Total Number in Specialty	Number sent questionnaire	Percent of Specialty Sampled	Number of Responses	Percent of Sample that Responded
Anesthesiology	94	38	40.4	16	42.1
Cardiology	36	16	44.4	21	*
Family Practice	304	118	38.8	77	65.3
Gastroenterology	19	6	31.5	11	*
General Surgery	319	123	38.6	61	49.6
Internal Medicine	576	231	40.1	83	35.9
Neuro Surgery	25	10	40.0	5	50.0
Obstetrics/Gynecology	239	124	51.9	44	35.5
Ongology	9	9	100	20	*
Orthopedic Surgery	152	59	38.8	35	59.3
Pediatrics	347	131	37.8	66	50.4
Pediatric Cardiology	5	4	80.0	4	100.0
Thoraic Surgery	25	12	48.0	15	*
Urology	69	31	44.9	15	48.4
Other	--	--	--	40	--
No Response	--	--	--	4	--
TOTAL	2219	912	41.1	517	56.7

*More responses were received from physicians claiming the particular specialty than were sent questionnaire.

Physician experience was measured in terms of age, years since graduation from medical school and the number of terminally ill patients for which the physician had served as the primary medical treatment manager. The age distribution of the respondents is outlined in Table 3. The mean age of the respondents was rounded to 34 years. Most of the physicians (79.4 percent) responding were forty years or younger.

Physician experience in the practice of medicine is depicted in Table 4. Approximately two thirds (66.3 percent) of the physicians responding had ten years or less experience as practicing physicians. Experience in the handling of terminally ill patients was measured by asking physicians how many of these type patients had they provided primary medical management. Table 5 depicts the profile of the sampled physicians in this area. Only seven percent of the respondents claimed to have no experience with the primary medical management of terminally ill patients or gave no response. The inquiry did not define when in the physician's career encounters with the terminally ill patients had occurred.

Physicians were asked to indicate their current practice either as a resident, full time physician on hospital staff, or administrator/commander. Table 6 presents the details of the physicians' responses. It will be noted that two other categories were added to the table which were not solicited on the questionnaire. Thirty one (6 percent) physicians placed themselves into the categories of full time research or fellow, by writing in these responses on the questionnaire. The majority of physicians responding to the questionnaire (68.5 percent) were engaged as full time physicians.

TABLE 3
AGE DISTRIBUTION OF RESPONDENTS

AGE GROUP	NUMBER	PERCENT
21-25	1	.2
26-30	79	15.3
31-35	204	39.5
36-40	126	24.4
41-45	48	9.3
46-50	30	5.8
51-55	17	3.2
56-60	9	1.7
60	1	.2
No response	2	.4

TABLE 4

PHYSICIAN EXPERIENCE IN THE PRACTICE OF MEDICINE MEASURED IN TERMS OF YEARS SINCE GRADUATION FROM MEDICAL SCHOOL

Range of Years		Range of Years	Number of Percent
82-78	1.5	133	25.7
77-73	6-10	210	40.6
72-68	11-15	79	15.3
67-63	16-20	43	8.3
62-58	21-25	30	5.8
57 and earlier		25	18 3.5
No Response		--	4.8

TABLE 5
PHYSICIAN EXPERIENCE WITH TERMINALLY ILL PATIENTS

Number of Terminal Patients Managed	Number of Physicians	Percent
0	21	4.1
1-24	228	44.1
25-49	67	13.0
50-74	63	12.2
76-100	36	7.0
101	87	16.8
No Response	15	2.9

TABLE 6
CURRENT PHYSICIAN PRACTICE

Practicing As A	Number	Percent
Resident	83	16.1
Full time Physician	354	63.5
Administrator/Commander	48	9.3
Fellow	22	4.2
Full-time Research	9	1.7
No Response	1	.2

Marital status, sex and race information was solicited from the sample population. Tables 7, 8, and 9 give the numerical profiles of the respondents in this area. A consolidated view of these tables indicates more than 85 percent of the respondents were married, white males.

Responses to all questions were tested as described in the research methodology. Population proportions were deemed to be significantly greater than 75 percent if the calculated Z score using techniques described by Daniel and Webster was more than 1.645. Therefore, proportions which are described as significant in the narrative description can be assumed to have met the above criteria. The remainder of this chapter will be devoted to a discussion and presentation of the statistical results of the survey.

TABLE 7
MARITAL STATUS OF RESPONDENTS

STATUS	NUMBER	PERCENT
Single	49	9.5
Married	442	85.5
Divorced/Separated	24	4.6
Widowed	0	0
No Response	2	.4

TABLE 8
SEX PROFILE OF RESPONDENTS

SEX	NUMBER	PERCENT
Male	482	93.2
Female	33	6.4
No response	2	.4

TABLE 9
RACIAL PROFILE OF RESPONDENTS

RACE	NUMBER	PERCENT
Black	28	5.4
White	448	86.7
Other	36	6.9
No Response	5	1.0

Results and Analysis of the Need for a Health Services Command "Do Not Resuscitate" Policy

Questions nine through fifteen on the questionnaire deal with the issue of whether or not Health Services Command (HSC) needs a policy concerning the writing of "Do Not Resuscitate" orders in a terminally ill patients chart.

Table 10 provides a complete description of the statistical analysis of the responses to these questions.

A significant number (85.1 percent) of physicians favored an HSC policy allowing the writing of DNR orders in the terminally ill patients chart. Similarly, a significant number (81.6 percent) felt writing DNR orders was good medical practice. A relatively large (77.4 percent), though not significant, number of respondents did indicate they had given verbal DNR orders to the nursing staff. Physicians who had actually written DNR orders in the chart (58.4 percent) did not represent a significant number under the criteria established. Question thirteen had a significant number of physicians (81.8 percent) responding in the affirmative concerning the positive effect that a policy allowing written DNR orders might have on physician-nurse relationships.

It was thought that the act of writing DNR orders was so emotional that even if there was a policy which allowed such order to be written, that physicians might not use it. Question fourteen indicates that a significant number (92.8 percent) of physicians in the population of interest would write DNR orders if allowed.

TABLE 10
RESULTS AND ANALYSIS OF THE OPINION OF RESPONDING PHYSICIANS CONCERNING THE NEED FOR A HEALTH SERVICES COMMAND POLICY ALLOWING THE WRITING OF DNR ORDERS IN THE CHART

QUESTION NUMBER	QUESTION	YES	NO	NO RESPONSE	PERCENT YES	CALCULATED Z SCORE n=517	SIGNIFICANT	p VALUE
9.	Do you favor a Health Services Command written command policy permitting "No Code"or "Do Not Resuscitate" orders to be written in the chart?	440	64	13	85.1	5.30	Yes	< .001
10.	Would you consider the writing of a "Do Not Resuscitate" order in a terminally ill patient's records good medical practice with or without legal precedent?	422	85	10	81.6	3.47	Yes	< .001
11.	Have you ever given verbal orders to the nursing staff not to resuscitate a patient?	400	116	1	77.4	1.26	No	.1038
12.	Have you ever written in the chart an order which in effect means "Do Not Resuscitate" or "No Code"?	302	213	2	58.4	-8.72	No	> .999
13.	Do you believe that a "Do Not Resuscitate" policy would have a positive effect on physician-nurse relationship"?	423	70	24	81.8	3.58	Yes	< .001
14.	If Health Services Command had a policy authorizing the charting of "Do Not Resuscitae" orders would you be willing to write such on order?	480	32	5	92.8	9.37	Yes	< .001
15.	Do you belive a clear "Do Not Resuscitate" policy would reduce the chance of irresponsible decision-making as pertains to withholding heroic life-saving measures?	389	107	21	75.2	.127	No	.4102

Question fifteen sought to collect physician opinion about the chance for irresponsible decision-making with regard to the withholding of heroic life-saving measures. A significant number of respondents did not respond in the affirmative to question fifteen. Therefore, physicians in the population of interest may feel that a written DNR policy will reduce the chance for irresponsible decision-making as pertains to the withholding of heroic life saving measures.

In addition to the previous analysis a Chi square test of independence of specialty and age was performed using the responses of all the sampled physicians to questions nine through fifteen. The results of these Chi square test is depicted in Tables 14 and 15 in Appendix B. Non respondents were not included in this analysis and n values, were adjusted accordingly.

In testing for independence of specialty the responses of the neuro surgeons and pediatric cardiologist were not included in the analysis. The expected frequency of the no responses in these specialties was always less than one, which possibly threatens the validity of the Chi square test [1]. In addition, the result of the Chi square test for independence of specialty in question fourteen is ignored for the same reason.

It was found that responses to questions nine through fifteen, excepting question fourteen, may be independent of specialty at the .05 level of significance.

The Chi square test of independence of age resulted in a determination that the responses to questions eleven, twelve, and fifteen were not independent of age at the .05 level of significance. The results of the analysis of question fourteen were not considered in the study since one of the expected frequencies was less than one.[2] Responses to questions nine, ten, and thirteen may be independent of age.

Results and Analysis of the General Form of a DNR Policy for Competent Terminally Ill Patients

Questions sixteen through twenty solicited opinions from physicians concerning their feelings about the general form of a DNR policy which would be used to guide them in making decisions for competent terminally ill patients. Responses to these questions were analyzed and tested for significance using three different categories of responses.

Hypotheses were tested using the opinions of all the physicians in the sample, the opinions of the physicians who favored a policy allowing the writing of DNR orders, and the opinions of physicians who did not favor such a policy. The results of these statistical tests are presented in Table 11. A more complete table of the calculations used to derive the data in Table 11 may be found in Tables 16, 17, and 18 of Appendix B. The tables also provide the detailed analysis of other sections of the questionnaire, the discussion of which will be presented in subsequent sections of this chapter.

A significant number of physicians in the population of interest can be expected to favor a discussion of the relevant facts concerning the direction further treatment should take, assuming the patient is terminally ill, no matter what their opinion about the need for a DNR policy.

Physicians in all three categories used in Table 11 felt, significantly, that the patient's requests concerning the use of all measures which would prolong his life should not be overruled.

TABLE 11

RESULTS AND ANALYSIS OF PHYSICIAN OPINION CONCERNING THE GENERAL FORM OF A DNR POLICY FOR TERMINALLY ILL, COMPTETENT PATIENTS

	QUESTION	ALL RESPONDENTS PERCENT YES n=517	ALL RESPONDENTS SIGNIFICANT/ P VALUE	ANSWERED YES TO QUES. #9 PERCENT YES n=440	ANSWERED YES TO QUES. #9 SIGNIFICANT/ P VALUE	ANSWERED NO TO QUES. #9 PERCENT YES n=64	ANSWERED NO TO QUES. #9 SIGNIFICANT/ P VALUE
16	Do you believe the relevant facts should be discussed with the patient to determine the direction in which treatment should proceed?	98.1	Yes <.001	98.2	Yes <.001	98.4	Yes <.001
17	If the patient requests that all measures necessary be used to prolong his life, do you believe his wishes should be honored?	92.1	Yes <.001	92.5	Yes <.001	90.6	Yes .0019
18	If the patient elects to allow you to write a "Do Not Resuscitate" order, do you believe an interval should be specified for reassessment of the order?	78.9	Yes .0197	80.2	Yes .006	75.0	No .8079
19	In circumstances where the patient's condition changes should a nurse or another physician be allowed to temporarily remove the "Do Not Resuscitate" order without the advice of the primary physician?	65.2	No >.999	66.1	No >.999	56.3	No >.999

TABLE 11 (continued)

	QUESTION	ALL RESPONDENTS PERCENT YES n=517	ALL RESPONDENTS SIGNIFICANT/ P VALUE	ANSWERED YES TO QUES. #9 PERCENT YES n=440	ANSWERED YES TO QUES. #9 SIGNIFICANT/ P VALUE	ANSWERED NO TO QUES. #9 PERCENT YES n=64	ANSWERED NO TO QUES. #9 SIGNIFICANT/ P VALUE
20	While the "Do Not Resuscitate" order is in effect should all reasonable measures be provided for the physical and mental comfort of the patient?	99.2	Yes $< .001$	100.0	Yes $< .001$	95.3	Yes $< .001$

On the issue of including a specified interval for reassessment of the DNR order, a significant number of all the respondents and physicians who favored a policy for written DNR orders believed such a comment was needed. Physicians who do not favor a DNR policy may feel that an interval for reassessment is required in a DNR order.

Opinions about the temporary removal of DNR orders did not yield significant affirmative responses in any of the three categories depicted in Table 11. It may be that physicians in the population of interest do not believe that another physician or nurse be allowed to remove a DNR order without the advice of the primary physician. Some physicians crossed out the word nurse on their questionnaire then checked the yes answer, indicating that they would go along with another physician changing the DNR order.

A significant number of physicians believed that all reasonable measures be provided for the physical and mental comfort of the patient after the DNR order is written.

Results and Analysis of the General Form of a DNR Policy for Incompetent Terminally Ill Patients

Questions twenty one through twenty four solicited opinions from the sampled physicians concerning their feelings about the general form of a DNR policy which would be used to guide them in making decisions for incompetent terminally ill patients. Table 12 provides a concise representation of the results of the responses to questions twenty one through twenty four using the same format as Table 11.

TABLE 12

RESULTS AND ANALYSIS OF PHYSICIAN OPINION CONCERNING THE GENERAL FORM OF A DNR POLICY FOR TERMINALLY ILL, INCOMPETENT PATIENTS

#QUESTION		ALL RESPONDENTS		ANSWERED YES TO QUES. #9		ANSWERED NO TO QUES. #9	
		PERCENT YES n=517	SIGNIFI-CANT/ P VALUE	PERCENT YES n=440	SIGNIFI-CANT/ P VALUE	PERCENT YES n=64	SIGNI-FICANT/ P VALUE
21	Should the relevant facts in the case be discussed with the appropriate family member or guardian?	98.8	Yes $< .001$	98.9	Yes $< .001$	100.0	Yes $< .001$
22	Should a "Do Not Resuscitate" policy specify the appropriate family members in priority who can make decisions for the incompetent patient?	76.4	No .1996	77.3	No .134	71.9	No .719
23	Should the reassessment criteria of a "Do Not Resuscitate" order for the incompetent patient be the same for a competent patient?	79.5	Yes .0091	80.9	Yes .002	68.8	No .8749
24	Should a request, at anytime, from an appropriate family member or guardian to remove the DNR order to implemented without question?	57.1	No $> .999$	57.0	No $> .999$	56.3	No $> .999$

It can be inferred that a significant number of physicians in the population of interest favor a provision in a DNR policy for discussion of the relevant facts in the case with the appropriate family member or guardian.

A significant number of physicians may not favor attempting to specify the appropriate family members in priority who can make decisions for the incompetent patient. A significant number of physicians can be expected to prefer that the reassessment criteria for a DNR order be the same for an incompetent patient as for a competent patient. Physicians who do not favor a DNR policy at all may favor the same reassessment criteria being applied to incompetent patients as for competent patients. Physicians in the population of interest may favor the honoring of a request by the appropriate family member or guardian to remove a DNR order without question.

Results and Analysis of the Administrative Mechanisms for Making DNR Decisions

Questions twenty five through thirty one on the questionnaire solicited physician opinion regarding some of the administrative mechanisms which should be included in a DNR policy. Table 13 provides a concise display of the results of the statistical analysis of the responses to these questions.

The hypothesis test in question twenty five was that 75 percent or less of the physicians will answer in the negative. The alternative was that more than 75 percent of the physician will answer no to the question. From Table 13 it can be inferred that more than 75 percent of the physicians in the population of interest believe that the decision not to resuscitate a patient should not be

1

TABLE 13

RESULTS AND ANALYSIS OF PHYSICIAN OPINION CONCERNING THE ADMINISTRATIVE MECHANISMS WHICH WOULD FACILITATE THE MAKING OF A DNR DECISION

#	QUESTION	ALL RESPONDENTS		ANSWERED YES TO QUES. #9		ANSWERED NO TO QUES. #9	
		PERCENT YES n=517	SIGNIFICANT/ P VALUE	PERCENT YES n=440	SIGNIFICANT/ P VALUE	PERCENT YES n=64	SIGNIFICANT/ P VALUE
25	Do you believe a decision not to resuscitate a patient who is terminally ill should be solely the physician's?	*83.8	Yes $< .001$	85.2	Yes $< .001$	78.1	No .281
26	Should consultation with at least one other physician be required before a "Do Not Resuscitate" order is written?	66.3	No $> .999$	65.9	No $> .999$	65.6	No .9582
27	If a committee were used to decide on "Do Not Resuscitate" order should all members of the patients care team be involved?	47.2	No $> .999$	48.2	No $> .999$	43.8	No $> .999$
28	Do you feel a committee approach to a "Do Not Resuscitate" decision would be too cumbersome and time consuming?	73.5	No .784	74.5	No .5871	68.8	No .8749

*Percent NO for number 25 only

Table 13 (continued)

#	QUESTION	ALL RESPONDENTS PERCENT YES n=517	ALL RESPONDENTS SIGNIFICANT/ P VALUE	ANSWERED YES TO QUES. #9 PERCENT YES n=440	ANSWERED YES TO QUES. #9 SIGNIFICANT/ P VALUE	ANSWERED NO TO QUEST. #9 PERCENT YES n=64	ANSWERED NO TO QUEST. #9 SIGNIFICANT/ P VALUE
29	Do you believe a "Do Not Resuscitate" policy should address children born with severe birth defects?	81.2	Yes $< .001$	82.0	Yes $< .001$	78.1	No .281
30	Would you be highly selective in giving your patients information about DNR orders?	65.4	No $> .999$	64.1	No $> .999$	73.4	No .6141
31	Would you provide the patient with an informational paper in regard to the use of "Do Not Resuscitate" orders?	51.1	No $> .999$	52.2	No $> .999$	45.3	No $> .999$

the physicians alone. Answers to question twenty six infer that physicians believe that consultation with at least one other physician may be required before a DNR decision is made.

Questions twenty seven and twenty eight dealt with the committee approach to DNR decision making. Based on the responses of the sample physicians, it may be that all members of the patients care team should be included in a DNR committee. Question twenty seven was the only question which did not achieve at least a simple majority of respondents in favor of the proposal.

Physicians in the population of interest may feel that a committee approach to a DNR decision would be too cumbersome and time consuming, as the positive responses to question twenty eight were not found to be significant.

On the question of addressing children born with severe birth defects in a DNR policy, a significant number of physicians felt that guidance should be included.

The answer to question thirty indicates that physicians may be highly selective in giving their patients information about DNR orders.

On the subject of giving terminally ill patients an informational paper in regard to the use of DNR orders, it may be that physicians favor this but not significantly. Respondents were more evenly split on this issue than any other in the survey.

Question thirty two was included to get an opinion about how well physicians felt their education had prepared them to advise patients and families about DNR orders. Positive responses to this question numbered 373 (72.1 percent). Analysis of the responses revealed the physicians may feel

their education was adequate in this area, but not significantly.

The statistical analysis will now make it possible to reach some conclusions with regard to the opinions of the population of United States Army Physicians of interest about the need for and general outline of a DNR policy.

FOOTNOTES

1. Wayne W. Daniel and James C. Terrell, Business Statistics, 2d ed. (Boston: Houghton Mifflin Co., 1979) p. 394.

2. Ibid.

III. Conclusions and Recommendations

Conclusions

The results of the survey indicate that more than 75 percent of United States Army physicians with the SSI's of interest believe that Health Services Command should have a policy which allows them to write DNR orders in the charts of terminally ill patients. This group of physicians believes further that the writing of DNR orders represents good medical practice. While the giving of verbal DNR orders was not found to be a significant practice under the criteria of the study, the raw percentage of physicians in the sample who acknowledged using this technique was 77.4 percent. The critical percentage for significance in the sample was calculated to be 78.1 percent, a difference of .7 percent.

It can be concluded from the survey that a policy allowing written DNR orders would have positive effects on the physicians relationship with nurses. It is felt from the review of the literature, as well as, personal interviews that a great deal of conflict is created between physicians who give verbal DNR orders and the nurses who are likely to have to carry them out.

If a policy is adopted which allows DNR orders to be written, it may be inferred that the population of physicians of interest will likely write such orders when necessary. Irresponsible decision making with regard to DNR orders, may be helped by a written DNR policy. Several physicians gave hand written responses which in effect meant that nothing would help an irresponsible physician make a DNR decision.

Results of the survey lead to the conclusion that a DNR policy should require the explanation of the relevant facts to the competent patient and to the appropriate relative or guardian in the case of the incompetent patient. The desires of the competent patient regarding the measures used to prolong his life should not be overruled. A provision may be made for a physician or nurse to temporarily remove the DNR order when the patient's condition changes. This issue would appear to require more study before a definite policy is established.

Patients should receive all the physical and mental comfort which can be reasonably provided. Numerous hand written comments were offered about this issue, however, none of them mentioned the use of a hospice environment to provide physical and mental comfort to a dying patient. It was not the purpose of this study to get into the issue of hospices and no attempt was made to lead the respondents to reach such a conclusion.

In dealing with the incompetent patient, a DNR policy may include a priority listing of the appropriate family members who could make decisions for the patient. Since the priority of relatives who can make decisions for incompetent patients is not uniform from state to state in the law, it is doubtful that a priority listing could be included in an HSC level policy.

An interval should be specified for reassessment of DNR orders. The criteria for reassessment should be the same for the competent and incompetent patient.

Physicians in the population of interest may believe that a request, at anytime, from the appropriate family member for removal of DNR should be honored, therefore, it cannot be recommended that such a comment be put in an HSC wide policy.

A Health Services Command DNR policy should require that the DNR decision not be made by the physician alone. It could not be concluded from the survey that physicians in the population of interest feel that the other person involved in the decision should be another physician. The hand written comments received in this area recommended the physician and patient or family be the ones to make the DNR decision. It may be that a committee made up of members of the patients care team should make the DNR decision, however, this approach seemed to have weak support among the sampled physicians. It may also be that physicians feel that a committee approach to DNR decisions would be too time consuming and cumbersome. Some vehement comments were written on several responses to the questions about committees such as "goddamnit no committees" and "committees never decided anything". Based on the results of the survey, it cannot be recommended that a committee be used to make DNR decisions.

While it was not the primary purpose of the survey to solicit physician opinion about the handling of children with severe birth defects, it was determined that a comment about these children should be included in a DNR policy.

It cannot be inferred from the results of the survey that a DNR policy direct patients be provided with a written informational paper which describes the use of DNR orders.

It was felt that if a significant number of physicians felt that their medical education had not adequately prepared them to advise patients and families about DNR orders, that a effort be made to correct this situation

through a continuing education program. Physicians in the population of interest may feel their education was adequate in this area. Further research in this area would be required before any definite conclusions could be reached.

Recommendations

Based on the results of this research it is recommended that a Health Services Command policy be promulgated which allows physicians to write "Do Not Resuscitate" orders into a terminally patient's chart. The general outline of the policy is presented in figure 1. Others who may wish to analyze the data derived from research may wish to use a less stringent criteria for significance than was used in this study. If that be the case, it is suspected that more items might be added to the suggested policy outline.

A copy of the United States Navy's "Guidelines for Orders not to Resuscitate" is included at Appendix C. This policy is dated 9 February 1983 and was furnished after this research project was begun. Many of the points in the suggested DNR policy outline are included in the Navy's version. It should be noted that the Navy did implement a committee system which was not supported by a significant number of physicians in this survey.

It is doubtful that a perfect policy, which will please everyone, can be written with regard to "Do Not Resuscitate" orders. Results of the survey do allow a strong recommendation be put forth allowing the writing of DNR orders in the charts of terminally ill patients.

I. DNR decisions for the terminally ill patients who are considered to be competent:

A. Discuss the relevant facts in the case to determine the direction in which treatment should proceed.

B. If the patient requests that all measures necessary be used to prolong his life, he should not be overruled.

C. Intervals should be specified for reassessment of DNR orders.

D. While the DNR order is in effect, all reasonable measures should be provided for the physical and mental comfort of the patient.

II. Administrative mechanisms to facilitate making the DNR decision.

A. Describe who besides the attending physician will be involved in making DNR decisions.

B. Address children born with severe defects.

C. Write the DNR order into patient's chart.

III. DNR decisions for terminally ill patients who are considered to be incompetent:

A. Discuss the facts in the case with the appropriate family member or guardian.

B. Use the same reassessment criteria for evaluating a DNR order for an incompetent patient as for a competent patient.

Figure 1. The General outline of the recommended Health Services Command "Do Not Resuscitate" Policy

APPENDIX A

D R A F T

HSUB-XO

SUBJECT: Preferences for a "Do Not Resuscitate" Policy for Terminally Ill Patients

¥name¥
¥address¥
¥city¥

1. There is not at present a definitive policy in the military medical community which permits active duty physicians to write, "Do Not Resuscitate (DNR)" or "No Code" orders in the chart of a terminally ill patient who is near death. The medico-legal issue of written DNR orders and a supporting policy to guide physicians in their decision-making process has been selected for study by the United States Army - Baylor University Program in Health Care Administration Administrative Resident at Fort Stewart, Georgia. Preliminary inquiries have revealed that the subject of DNR orders is of interest to many physicians and a definitive policy on this issue would support the entire military health care community.

2. You have been randomly selected to receive a questionnaire designed to gather the opinion of military physicians who manage the care of terminally ill patients concerning the use of heroic resuscitative procedures. Heroic resuscitative procedures are defined for purposes of this questionnaire as the use of all mechanical and pharmacological means available to resuscitate and maintain a terminally ill or comatose/moribund patient.

3. The questionnaire is attached as an inclosure to this letter, along with a pre-addressed envelope for its return, and a pre-addressed post card which acknowledges return of the survey. There is no need to sign the questionnaire unless you wish to do so. If you desire a copy of the results of the survey, place a check mark in the space provided on the post card. Your cooperation in completing and returning the survey as soon as possible will be sincerely appreciated.

1 Incl
as

JOHN N. MCNAIR
MAJ, MSC
Administrative Resident

"DO NOT RESUSCITATE" POLICY FOR TERMINALLY ILL PATIENTS QUESTIONNAIRE

DEMOGRAPHIC INFORMATION:

1. (a) What is the name of the medical school from which you obtained your M.D./D.O. Degree?

_____

(b) In what year did you obtain your M.D./D.O. degree?

_____

2. Your current practice is as a:

____ Resident

____ Full time physician on hospital staff

____ Administrator/Commander

3. Marital status:

____ Single

____ Married

____ Divorced or Separated

____ Widowed

4. Sex:

____ Male

____ Female

5. Race:

____ Black

____ White

____ Other

6. Your age (nearest year):

_____

7. In what specialty do you currently practice?

____ Anesthesiology	____ Obstetrics/Gynecology
____ Cardiology	____ Oncology
____ Family Practice	____ Orthopedic Surgery
____ Gastroenterology	____ Pediatrics
____ General Surgery	____ Pediatric Cardiology
____ Internal Medicine	____ Thoracic Surgery
____ Neuro Surgery	____ Urology
	____ Other

8. Approximately how many terminally ill patients have provided the primary medical management?

_____.

9. Do you favor a Health Services Command written command policy permitting "No Code" or "Do Not Resuscitate" orders to be written in the chart?

____ yes ____ no

10. Would you consider the writing of a "Do Not Resuscitate" order in a terminal patients records good medical practice with or without legal precedent?

____ yes ____ no

11. Have you ever given verbal orders to the nursing staff not to resuscitate a patient?

____ yes ____ no

12. Have you ever written in the chart an order which in effect means "Do Not Resuscitate" or "No Code?"

____ yes ____ no

13. Do you believe that a "Do Not Resuscitate" policy would have a positive effect on physician-nurse relationships?

____ yes ____ no

14. If Health Services Command had a policy authorizing the charting of "Do Not Resuscitate" orders would you be willing to write such an order?

____ yes ____ no

15. Do you believe a clear "Do Not Resuscitate" policy would reduce the chance of irresponsible decision-making as pertains to withholding heroic life saving measures?

____ yes ____ no

IN THE CASE OF THE TERMINALLY ILL PATIENT WHO IS CONSIDERED COMPETENT:

16. Do you believe the relevant facts should be discussed with the patient to determine the direction in which treatment should proceed?

____ yes ____ no

17. If the patient requests that all measures necessary be used to prolong his life, do you believe his wishes should be honored?

____ yes ____ no

18. If the patient elects to allow you to write a "Do Not Resuscitate" order, do you believe an interval should be specified for reassessment of the order?

____ yes ____ no

19. In the circumstances where the patient's condition changes should a nurse or another physician be allowed to temporarily remove the "Do Not Resuscitate" order without the advice of the primary physician?

____ yes ____ no

20. While the "Do Not Resuscitate" order is in effect should all reasonable measures be provided for the physical and mental comfort of the patient?

____ yes ____ no

IF THE PATIENT IS UNCONSCIOUS OR INCOMPETENT:

21. Should the relevant facts in the case be discussed with the appropriate family member or guardian?

____ yes ____ no

22. Should a "Do Not Resuscitate" policy specify the appropriate family members in priority who can make decisions for the incompetent patient?

____ yes ____ no

23. Should the reassessment criteria of a "Do Not Resuscitate" order for the incompetent patient be the same as for a competent patient?

____ yes ____ no

24. Should a request, at any time, from an appropriate family member or guardian to remove the DNR order, be implemented without question?

____ yes ____ no

IN MAKING A "DO NOT RESUSCITATE" DECISION:

25. Do you believe that the decision not to resuscitate a patient who is terminally ill should be solely the physicians?

____ yes ____ no

26. Should consultation with at least one other physician be required before a "Do Not Resuscitate" order is written?

____ yes ____ no

27. If a committee were used to decide on a "Do Not Resuscitate" order, should all the members of the patient's care team be involved?

____ yes ____ no

28. Do you feel that a committee approach to a "Do Not Resuscitate" decision would be too cumbersome and time consuming?

____ yes ____ no

29. Do you believe a "Do Not Resuscitate" policy should address children born with severe birth defects?

____ yes ____ no

30. Would you be highly selective in giving your patients information about DNR orders?

____ yes ____ no

31. Would you provide the patients with an informational paper in regard to the use of "Do Not Resuscitate" orders?

____ yes ____ no

32. Do you feel your medical education adequately prepared you to advise patients and families concerning "Do Not Resuscitate" orders?

____ yes ____ no

APPENDIX B

TABLE 2

MEDICAL SCHOOLS REPRESENTED BY RESPONDENTS TO THE DNR QUESTIONAIRRE

SCHOOL	NUMBER	SCHOOL	NUMBER	SCHOOL	NUMBER
No school listed	12	Loma Linda U.	2	State U. of NY	3
Alabama	10	Loyda U. Chicago	1	SUNY-Syracuse	1
Albany MC	4	Loyda-Stritch	4	SUNY-Brooklyn	1
Baylor	6	LSU	2	SUNY-Upstate	1
Boston U.	2	Marquette	3	Temple	4
Bowman-Gray	2	Maryland	5	Texas COSM	3
Brown U.	1	MC of Pennsylvania	4	Texas Tech	1
Case-Western Reserve	2	MU of South Carolina	18	Tufts	5
Chicago COSM	3	MC of Virginia	14	Tulane	12
Cincinatti	1	MC of Georgia	13	U. of Arizona	2
Columbia U.	5	McGill	1	U. of Arkansas	3
Cornell	4	Meharry	3	U. of C-San Diego	1
COSM	11	Michigan State	1	U. of California	1
COSM Des Moines	3	Mississippi	5	U. of Chicago	3
Creighton	7	Mt Sinai-CUNY	1	U. of Cincinatti	5
Duke	11	N. Texas State	1	U. of Colorado	5
E VA-Norfolk	1	NE COSM	1	U. of Connecticutt	1
Einstein	3	New York MC	3	U. of Florida	2
Emory	4	NYU, Sch of Medicine	2	U. of Hawaii	3
Foreign Medical Sch. Grad.	37	Northwestern	6	U. of Illinois	8
George Washington	6	NYU	1	U. of Iowa	7
Georgetown	13	Ohio State U.	8	U. of Kansas	6
Hahneman	1	Oklahoma U.	6	U. of Kentucky	1
Howard	5	Penn State	3	U. of Louisville	2

TABLE 2 (Continued)

SCHOOL	NUMBER
Indiana	7
Jefferson MC	4
Johns Hopkins	4
Kansas U.	1
Kansas City COSM	8
Kirksville COSM	6
U. of Pennsylvania	4
U. of Pittsburgh	3
U. of Puerto Rico	10
U. of Rochester	3
U. of S. Alabama	1
U. of S. Florida	3
U. of South Dakota	1
U. of Tennessee	7
U. of Texas-Galveston	4
U. of Texas-Dallas	2
U. of Texas-Houston	1
U. of Utah	11
U. of Virginia	8
U. of Vermont	3
U. of Washington	8
U. of C.-Davis	1
UCLA	2
U. of North Carolina	1
Union U.-Albany	1
USC	3
USUHVS	1
UTHSC-Dallas	2
UTSA	7
U. of Wisconsin	1
Vanderbilt	3
Wake Forest	2
Washington U.	3
Wayne State	3
Womens MC of Penn	1
Wright State	1

SCHOOL	NUMBER
Philedelphia COSM	4
Southwestern	1
St Louis U.	3
U. of NY-Brooklyn	1
Stanford	1
Stanly MC	1
WVSOM	1
West Virginia MC	2
Yale	2

SCHOOL	NUMBER
U. of Michigan	4
U. of Minnesota	9
U. of Missouri	3
U. of Nebraska	4
U. of New Mexico	2
U. or Oregon	7

TABLE 14

CHI SQUARE TEST FOR INDEPENDENCE OF SPECIALTY

		Anesthesiology	Cardiology	Family Practice	Gastroenterology	General Surgery	Internal Medicine	Obstetrics/Gyn	Oncology	Orthopedic Surgery	Pediatrics	Thoracic	Urology	Other	Total	Calculated X^2
9	Yes	15 (13.96)	17 (18.32)	66 (66.29)	7 (9.72)	40 (51.46)	75 (72.39)	38 (37.51)	18 (17.45)	32 (30.52)	54 (54.09)	11 (11.34)	14 (13.08)	36 (34.02)	437	8.80
	No	1 (2.04)	4 (2.68)	10 (9.71)	3 (1.28)	11 (17.54)	8 (10.60)	5 (5.49)	2 (2.55)	3 (4.47)	8 (72.92)	2 (1.66)	1 (1.92)	3 (4.98)	64	
	Total	16	21	76	10	59	83	43	20	35	62	13	15	39	501	
10	Yes	13 (13.29)	16 (16.61)	64 (63.10)	7 (8.30)	48 (48.62)	70 (68.98)	33 (35.70)	19 (16.61)	26 (29.06)	56 (53.97)	12 (11.62)	13 (12.45)	35 (32.38)	412	9.23
	No	3 (2.74)	4 (3.39)	12 (12.90)	3 (1.70)	12 (10.10)	12 (13.92)	10 (7.30)	1 (3.39)	9 (5.94)	9 (11.03)	2 (2.38)	2 (2.55)	4 (6.62)	83	
	Total	16	20	76	10	60	82	43	20	35	65	14	15	39	495	
11	Yes	10 (12.44)	17 (16.33)	55 (59.09)	11 (8.56)	50 (47.44)	57 (64.55)	29 (30.22)	17 (15.65)	25 (27.22)	56 (51.33)	11 (11.66)	10 (11.66)	34 (31.11)	392	17.80
	No	6 (3.55)	4 (4.67)	22 (17.11)	0 (2.44)	11 (13.56)	13 (13.35)	14 (9.77)	3 (4.44)	10 (7.77)	10 (14.67)	4 (3.33)	5 (3.33)	6 (8.88)	112	
	Total	16	21	77	11	61	83	44	20	35	66	15	15	40	504	
12	Yes	9 (8.30)	13 (12.21)	42 (44.76)	6 (5.39)	30 (36.46)	54 (60.25)	19 (25.58)	15 (11.62)	21 (20.35)	32 (38.37)	8 (8.72)	9 (8.72)	27 (22.56)	293	13.25
	No	7 (8.70)	8 (8.79)	35 (32.24)	5 (5.61)	29 (23.54)	29 (34.75)	25 (18.42)	5 (8.37)	14 (14.65)	24 (17.63)	7 (6.28)	6 (6.28)	13 (16.75)	211	
	Total	16	21	77	11	61	83	44	20	35	56	15	15	40	504	
13	Yes	14 (13.77)	20 (18.07)	63 (61.11)	7 (9.61)	47 (50.78)	69 (68.86)	36 (36.15)	18 (16.35)	28 (29.40)	51 (53.36)	14 (12.81)	13 (12.05)	34 (23.57)	414	9.33
	No	2 (2.23)	1 (2.92)	8 (9.89)	3 (1.39)	13 (8.22)	11 (11.14)	6 (5.85)	1 (2.65)	5 (4.60)	5 (8.64)	1 (1.95)	1 (1.95)	5 (8.43)	67	
	Total	16	21	71	10	60	80	42	19	33	62	15	14	39	481	
14	Yes	15 (15.00)	20 (19.70)	74 (71.28)	9 (10.32)	54 (57.22)	79 (77.85)	40 (41.27)	19 (18.76)	32 (31.89)	60 (60.97)	14 (13.13)	15 (14.07)	38 (37.52)	469	10.62
	No	1 (1.00)	1 (1.30)	4 (4.71)	2 (1.68)	7 (3.78)	4 (5.15)	4 (2.73)	1 (1.24)	2 (2.11)	5 (4.03)	0 (1.87)	1 (1.93)	2 (2.48)	31	
	Total	16	21	78	11	61	83	44	20	34	65	14	15	40	500	
15	Yes	11 (11.78)	18 (16.49)	60 (59.67)	6 (7.05)	37 (45.53)	60 (63.60)	36 (37.99)	19 (15.70)	26 (25.12)	49 (49.68)	13 (10.99)	14 (11.78)	31 (29.83)	380	19.86
	No	4 (3.22)	3 (4.51)	16 (16.33)	3 (2.15)	8 (12.48)	21 (17.40)	6 (5.02)	1 (4.30)	6 (6.87)	13 (13.32)	1 (3.00)	1 (3.22)	1 (8.17)	104	
	Total	15	21	76	10	58	81	42	20	32	62	14	15	32	484	

X^2 critical value with 12 degrees of freedom =21.026 at α=.05

TABLE 15

CHI SQUARE TEST FOR INDEPENDENCE OF AGE

Question/Answers		21-30	31-35	36-40	41-45	46-50	51-55	56	Total	Calculated X^2	Independent	P Value
9	Yes	75(70)	177(176.75)	105(106.75)	39(38.5)	24(25.38)	12(14.88)	9(8.75)	441			
	No	5(10)	25(26.25)	17(15.25)	5(5.5)	5(3.63)	5(2.12)	1(1.25)	63	8.26		
	Total	80	202	122	44	29	17	10	504			
10	Yes	69(6589)	176(167.63)	101(104.25)	36(38.36)	23(24.19)	11(14.17)	6(7.51)	422			
	No	10(13.11)	25(33.37)	24(20.75)	10(7.64)	6(4.81)	6(2.83	3(1.49)	84	11.33		
	Total	79	201	125	46	29	17	9	506			
11	Yes	64(6198)	165(158.05)	96(97.62)	40(37.19)	18(23.24)	9(13.17)	7(7.75)	399			
	No	16(18.02)	39(45.95)	30(28.38)	8(10.81)	12(6.76)	8(3.83)	3(2.25)	116	14.40	No	.05<p<.025
	Total	80	204	126	48	30	17	10	515			
12	Yes	46(61.98)	130(158.05)	77(97.62)	25(36.41)	11(23.24)	9(13.17)	4(7.75	302			
	No	34(18.02)	74(45.95)	49(28.38)	22(10.59)	19(6.75	8(13.83)	6(2.25)	212	118.2	No	<.005
	Total	80	204	126	47	30	17	10	514			
13	Yes	73(67.06)	171(168.51)	98(104.03)	37(36.97)	23(24.93)	13(13.76)	9(7.74)	423			
	No	5(10.94)	25(27.49)	23(16.97	6(6.03)	6(4.07)	3(2.24)	1(1.26)	69	7.93		
	Total	78	196	121	43	29	16	9	492			
14	Yes	77(74.99)	193(190.29)	117(116.23)	44(.06)	26(28.12)	16(15.94)	9(9.37)	479			
	No	3(5.01	10(12.71)	7(7.07)	6(2.94)	4(1.88)	1(1.06)	1(.626)	32	7.75		
	Total	80	203	124	47	30	17	10	611			
15	Yes	71(61.14)	155(153.63)	87(95.63)	35(43.11)	22(36.06)	12(11.76)	6(7.05)	388			
	No	7(16.85)	41(42.37)	35(26.37)	11(2.88)	7(9.94)	3(3.24)	3(1.99)	107			
	Total	78	196	122	46	29	15	9	495	42.53	No	<.005

Critical value X^2 at α=.05 and 6 degrees of freedom =12.592

TABLE 16

RESULTS AND ANALYSIS OF THE OPINION OF ALL PHYSICIANS WHO RESPONDED TO THE DNR QUESTIONNAIRE

QUESTION NUMBER	YES	NO	NO RESPONSE	PERCENT YES	CALCULATED Z SCORE n=517	SIGNIFICANT	P VALUE
16.	507	4	6	98.1	12.1	Yes	<.001
17.	476	26	15	92.1	8.96	Yes	<.001
18.	408	96	13	78.9	2.06	Yes	.0197
19.	337	159	21	65.2	-5.15	No	>.999
20.	513	0	4	99.2	12.72	Yes	<.001
21.	511	2	4	98.8	12.61	Yes	<.001
22.	395	112	10	76.4	.735	No	.1996
23.	411	87	19	79.5	2.36	Yes	.0091
24.	295	203	19	57.1	-9.42	No	>.999
25.	76	433	8	*83.8	4.60	Yes	<.001
26.	343	162	12	66.3	-4.55	No	>.999
27.	244	245	28	47.2	-14.60	No	>.999
28.	380	122	15	73.5	-.787	No	.784
29.	420	74	23	81.2	3.28	Yes	<.001
30	338	132	47	65.4	-5.05	No	>.999
31.	265	225	28	51.1	-12.57	No	>.999
32.	373	134	10	72.1	-1.50	No	.9932

$\alpha = .05$
z critical = 1.645

TABLE 17

RESULTS AND ANALYSIS OF THE OPINION OF PHYSICIANS WHO FAVORED A HEALTH COMMAND DNR POLICY

QUESTION NUMBER	YES	NO	NO RESPONSE	PERCENT YES	CALCULATED Z SCORE n=440	SIGNIFICANT	P VALUE
16.	432	4	4	98.2	11.23	Yes	<.001
17.	407	21	12	92.5	8.48	Yes	<.001
18.	353	79	8	80.2	2.53	Yes	.006
19.	291	134	15	66.1	-4.29	No	>.999
20.	440	0	0	100.0	12.11	Yes	<.001
21.	435	2	3	98.9	11.56	Yes	<.001
22.	340	94	6	77.3	1.10	No	.134
23.	356	73	11	80.9	2.86	Yes	.002
24.	251	74	15	57.0	-8.69	No	>.999
25.	60	*375	5	85.2	4.95	Yes	<.001
26.	290	142	8	65.9	-4.40	No	>.999
27.	212	209	19	48.2	-12.99	No	>.999
28.	328	102	10	74.5	-.22	No	.5871
29.	361	63	16	82.0	3.41	Yes	<.001
30.	282	120	38	64.1	-5.28	No	>.999
31.	230	188	22	52.2	-11.00	No	>.999
32.	323	114	3	73.4	-.77	No	.779

$\alpha = .05$
Z Critical = 1.645

TABLE 18

RESULTS AND ANALYSIS OF THE OPINION OF PHYSICIANS WHO DID NOT FAVOR A HEALTH SERVICES COMMAND DNR POLICY

QUESTION NUMBER	YES	NO	NO RESPONSE	PERCENT YES	CALCULATED Z SCORE n=64	SIGNIFICANT	P VALUE
16.	63	0	1	98.4	4.33	Yes	$< .001$
17.	58	4	2	90.6	2.89	Yes	.0019
18.	56	16	4	75	-.87	No	.8079
20.	61	0	3	95.3	3.75	Yes	$< .001$
21.	64	0	0	100.0	4.62	Yes	$< .001$
22.	46	15	3	71.9	-.58	No	.719
23.	44	13		68.8	-1.15	No	.8749
24.	36	25		56.3	-3.46	No	$> .999$
25.	12	50	2	*78.1	.58	No	.281
26.	42	19	3	65.6	-1.73	No	.9582
27.	28	29	7	43.8	-5.77	No	$> .999$
28.	44	17	3	68.8	-1.15	No	.8749
29.	50	10	4	78.1	.58	No	.281
30.	47	11	6	73.4	-.29	No	.6141
31.	29	31	4	45.3	-5.48	No	$> .999$
32.	41	18	5	64.1	-2.02	No	.9783

$\alpha = .05$
Z Critical = 1.645

APPENDIX C

DEPARTMENT OF THE NAVY
NAVAL HOSPITAL
NATIONAL NAVAL MEDICAL CENTER
BETHESDA, MARYLAND 20814

IN REPLY REFER
NHBETHINST 6320
NHBETH:83:ADS:
9 Febuary 19

note original spring

NHBETH INSTRUCTION 6320.37

From: Commanding Officer

Subj: Guidelines for orders not to resuscitate

1. Purpose. To establish guidelines for writing orders not to resuscitate ("no code" orders).

2. Background. The routine application of cardiopulmonary resuscitation and Advanced Cardiac Life Support has given rise to serious questions regarding the appropriateness of resuscitating every patient who suffers an arrest. Confusion as to criteria for decisions not to resuscitate, identity of decision makers, and a proper decision making process has further obscured an already difficult problem. This instruction is intended to simplify the problem by establishing a clearly delineated decision making process, identifying the appropriate decision makers and providing both criteria for making such decisions and a system of review.

3. Policy. The overriding policy of this hospital is to maintain life and health, and the autonomy of both patients and medical department personnel.

4. Procedures for Writing Orders Not to Resuscitate. The following elements must be contained in every instance of writing orders not to resuscitate (DNR orders). (Terms are defined in paragraph 8.)

a. Only credentialled physicians may write orders not to resuscitate.

b. Orders must be clearly written, signed, dated and immediately shown to the ward or unit charge nurse.

c. The order not to resuscitate must be accompanied by a progress note describing the application of the decision making process. (See Tables 2 and 3.) The description will include:

1) A statement indicating: condition (reversability/irreversability), physical status (reparability/irreparability), mental status (competent/incompetent/diminished competence), and prognosis (death imminent/non-imminent).

2) Patient and family involvement including their attitudes and responses.

3) Optimal care treatment plan.

d. The physician's discussion with the patient or family shall be witnessed by a registered professional nurse, or social worker, who will countersign the doctor's progress note.

e. DNR orders must be reviewed daily by the ward medical officer.

f. A staff physician must countersign all DNR orders and progress notes within twelve hours of their writing.

not internally consistent with 4a

g. The Quality Assurance/Risk Management officer must be notified of the DNR order by the physician writing the order within twelve hours of writing the order. The QA/RM officer will then notify the Chairman of the Medical Ethics Committee of the order.

5. Questions or Disagreement. The patient, any member of the family or of the health care provider team who questions or disagrees with the writing of the DNR order, or the absence of a DNR order, should express that disagreement in writing to the medical ethics committee.

6. Medical Ethics Committee. The committee will act as a decision making and review committee on matters relating to DNR orders, as well as other matters at the direction of the commanding officer.

a. Composition. The committee will be composed of the following seven members:

One Medical Officer
One Chaplain Corps Officer
One Judge Advocate General Corps Officer
One Medical Service Corps Officer (administrative)
One Nurse Corps Officer
One psychiatrist or psychologist
One senior member of the Hospital Corps Staff

b. Action and Decision.

1) The committee will review monthly all DNR orders. It will act immediately, however, in those cases where immediate action is warranted or requested.

7. Discussion.

a. Paramount Role of the Patient. Underlying guidance on DNR orders is the fundamental principle that the patient's desires play the dominant role in the decision process; however, patients may not be competent at the time the question of resuscitation arises. There are two dimensions to competence: factual and legal. The dimensions can be classified on the following two by two matrix:

TABLE 1
Classification of Legal and Factual Competence

	Factual	Legal
Competent		
Incompetent		

b. Legally and Factually Competent Patient. In general, when the competent patient requests a DNR order, the request will be honored as outlined by Table 2 regardless of the expected benefits of resuscitation.

TABLE 2

Resuscitation Decisions for Competent Patients as a function of the provider's assessment of benefit and of the patient's preference

PROVIDER'S ASSESSMENT	PATIENT'S PREFERENCE*		
	Competent preference favoring resuscitation	No competent preference expressed	Competent preference opposing resuscitation
Resuscitation would benefit patient	Resuscitate	Resuscitate	Reexamine decision process closely, then do not resuscitate
Unclear whether resuscitation would benefit patient	Resuscitate	Resuscitate	Do not resuscitate
Resuscitation would not benefit patient	Reexamine decision process closely, then resuscitate	Do not resuscitate	Do not resuscitate

i.e. must place a pt with [illegible] esophageal carcinoma [illegible]

* For purposes of this table, prior (written or oral) directives of a person while competent, if not changed by more recent statements or actions of that person, are considered to be "competent" preferences.

The following cases will be given immediate attention by the committee:

1) Third Party Interests. If reasons exist not to honor the patient's request for a DNR order (e.g., the patient is pregnant, is a sole or primary provider, and so forth), the case shall be referred to the committee. If the committee agrees there is a third party interest but the patient persists in his decision, the case will be referred to the courts. If the committee concludes that there is no third party interest, then the committee will consult with the individual asserting the third party interest. If this

person then agrees with the committee, the patient's wishes are followed; if not, the case may be referred to the courts.

2) Disagreement with Patient. In the event of disagreement with the patient by any health care provider or family member, the case will be referred to the committee. If the committee concurs with the individual in disagreement with the patient, the committee will recommend that a coercive offer (i.e., that the patient be transferred to another facility) be made or will refer the case to the courts. If the committee agrees with the patient, it will meet with the disagreeing person. If the health care provider does not agree, he shall comply with the committee's decision or be removed from the case. If the family continues in disagreement, it may refer the case to the courts.

3) Military Personnel. Governmental claims of a right to require medical care for the individual member obtain only when it can reasonably be expected that the member can be returned to duty as an active and contributing member of the armed forces. Governmental rights should not, therefore, be considered in the case of the terminally ill patient or in the patient in which treatment would constitute undue suffering. In such cases, the patient is to be treated as a legally and factually competent patient.

c. Legally Incompetent, Factually Competent Patient.

1) Minors. The decision not to resuscitate a minor must be made by the parent or a person standing in place of the parent. In making the decision, the parent or substitute must act in the best interest of the minor. In addition, in the case of a mature minor, the minor's assent should be obtained.

d. Incompetent Patient. Subsumed under the category of the incompetent patient is the patient with diminished competence. In all decisions the underlying principle is to attempt to determine the decision the patient would have made were he fully competent and informed. This is especially true in the case of the patient whose capacity is diminished as a consequence of pain, therapeutic regimen, or other factors associated with the illness.

1) Table 3 summarizes the decision alternatives first as a function of the provider's assessment of benefit vis à vis the family's views and second as a function of the provider's recommendation and the family's views.

TABLE 3

A. Summary of Resuscitation Decisions for Incompetent Patients, as a function of the provider's assessment of benefit and of the family's views

Provider's assessment of benefit to patient	FAMILY'S POSITION*		
	Incompetent Patient without Family	Family Agrees with Provider's Assessment	Family Disagrees with Provider's Assessment
Resuscitation would benefit patient	Resuscitate	Resuscitate	Review +
Unclear whether resuscitation would benefit patient	Resuscitate	Resuscitate	Family decides i.e. family or ct. surrog.
Resuscitation would not benefit patient	Reexamine closely, are do not resuscitate →	Do not resuscitate +	Resuscitate unless guardianship is transferred

B. Summary of Resuscitation Decisions for Incompetent Patients, as a function of the provider's recommendation and the family's views

Provider's Recommendation Course	FAMILY'S POSITION*	
	Family Agrees with Provider	Family Disagrees with Provider Because of Effects on Parties other than Patient
Should Resuscitate	Resuscitate	Review +
Should Not Resuscitate	Do not resuscitate →	Review +

* The family is assumed to be in agreement and to speak with one voice. Complications that develop when this is not the case should be referred to the medical ethics committee for review and disposition.

\+ Review cases call for immediate review and recommendation of the medical ethics committee.

→ In cases of diminished competence decisions should always lean in favor of resuscitation. In the cases indicated, even though the provider and family agree that orders not to resuscitate would be most appropriate, but the patient of diminished competence expresses the desire to be resuscitated, then the final decision should be favor of resuscitation.

2) All cases involving incompetence or diminished competence will be routinely reviewed by the committee. Before the DNR order is written, however, the case must be reviewed at least by a legal officer and psychologist or psychiatrist to establish competence. If the order is one that on Table 3 calls for review or reexamination, then the case must be reviewed by the committee before the order is written.

3) When the committee concurs with the physician, members of the committee may assist the physician in clarifying the provider's assessment for the family. If the family remains unpersuaded, the provider may make a coercive offer or refer the matter to the courts.

4) When the committee concurs with the family, it shall confer with the physician. If the disagreement remains, the physician shall comply with the committee's decision or be removed from the case.

8. Definitions. In general, the definitions contained herein are either consistent with or derived from the President's Commission for the Study of Ethical Problems in Medicine, and where applicable, local laws and military regulations.

a. Assent. The passive acceptance of a decision made by others.

b. Autonomy. The right of self determination, i.e., the right of competent persons to form, revise and pursue a plan of life. In matters of patient care and orders not to resuscitate, it means that the competent patient's own values shall be decisive. It also means that health care providers shall not be required to act in a manner contrary to their own values or professional standards.

c. Competence. The ability to make an informed choice. In the case of orders not to resuscitate, it means that the patient understands the relevant risks and alternatives with their attendant consequences. The decision should reflect deliberate choice.

1) Legal Incompetence. That situation in which an individual is incompetent by operation of law, e.g., a minor or a person previously declared incompetent by judicial decree. Under Maryland state law, a minor who is married or who is a parent is legally competent.

2) Factual Incompetence. Those situations in which a patient is comatose, unconscious, suffering insane delusions or is otherwise unable to manage his or her personal affairs due to mental disability or disease.

d. Consent. Active participation in and agreement with a decision.

e. Death Imminent. That condition in which in the ordinary course of events, death will probably occur within two weeks. Note that while a death imminent prognosis is a contributing factor for an order not to resuscitate, its absence does not create a prohibition.

f. Diminished Competence. This condition exists when a patient cannot make decisions that promote his well being in accordance with his own previously expressed values and preferences. Diminished competence is often seen as a consequence of pain, therapeutic regimen, or other factor associated with the patient's illness.

g. Family. Those persons sharing a consanguineous relationship (blood) with the patient. In order of consanguinity, this includes the patient's spouse, children, parents and siblings.

h. Informed Consent. A principle of law embodied within the patient's autonomy or right of self determination. It requires that the patient must be informed of all proposed medical procedures, the material risks of those procedures, alternative courses of action and the material risks attendant to the alternatives.

i. Mature Minor. Those above the age of 14 will generally be considered mature minors. Those under the age of fourteen may be so considered at the discretion of the committee.

j. Optimal Care. Care which assures the comfort, dignity, and physical maintenance of the patient regardless of the existence of orders not to resuscitate.

k. Reparability. The extent to which the illness can be cured, corrected, or otherwise stemmed within existing knowledge and technology.

l. Reversability. The extent to which known therapeutic measures can effectively reverse the course of the illness.

m. Terminally ill. That condition in which there is no reasonable medical possibility that the patient will avoid death and return to a normal cognitive and sapient state.

9. Action. Chiefs of directorates are required to ensure that the provisions of this instruction are understood and carried out. It is also highly recommended that those providers having to deal with orders not to resuscitate become familiar with the bibliography on the subject in the E. R. Stitt Library.

J. J. QUINN

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